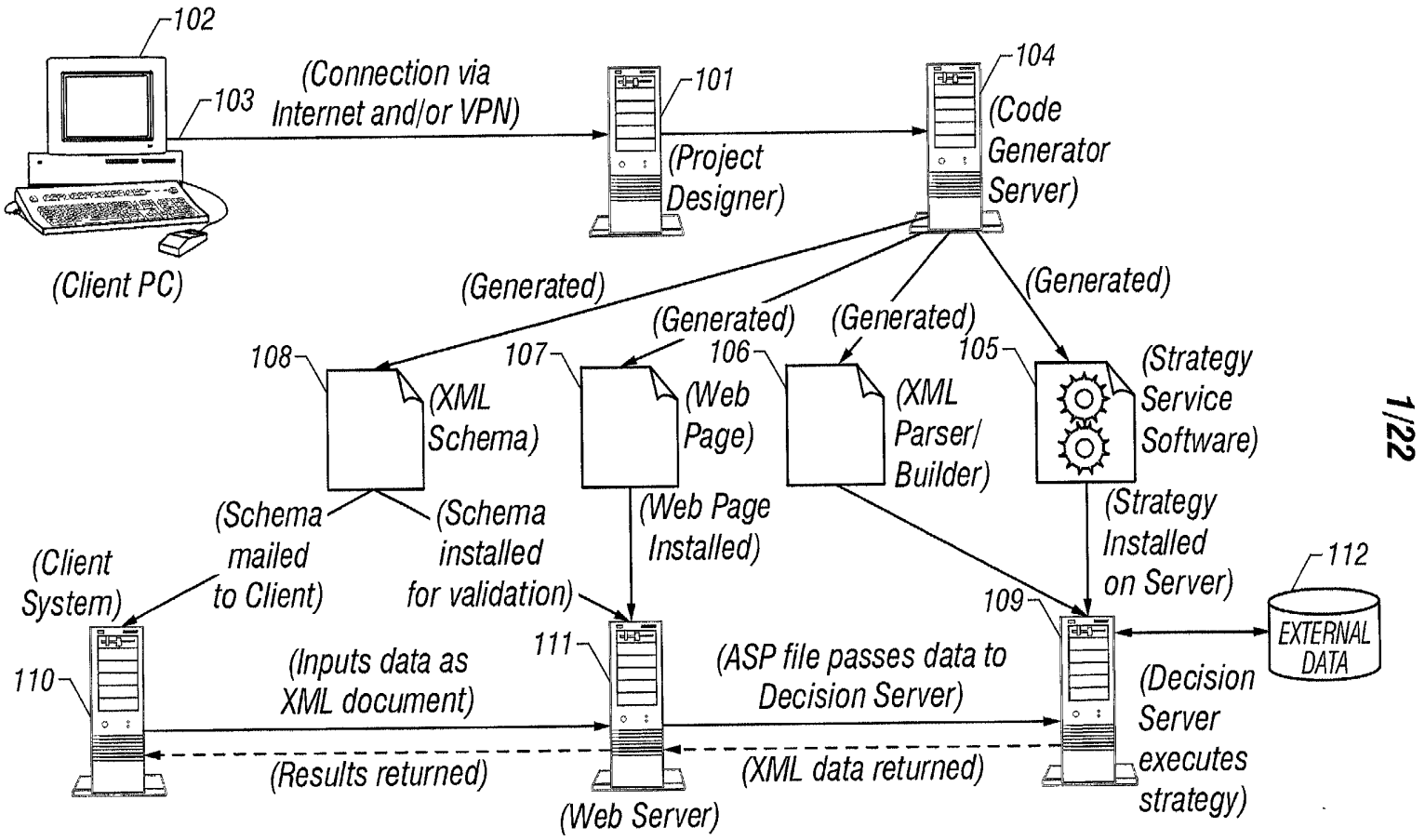

102
103
(Connection via Internet and/or VPN)
101
(Project Designer)
104
(Code Generator Server)
(Client PC)
(Generated)
(Generated)
(Generated)
(Generated)
108
(XML Schema)
107
(Web Page)
106
(XML Parser/ Builder)
105
(Strategy Service Software)
(Schema mailed to Client)
(Schema installed for validation)
(Web Page Installed)
(Strategy Installed on Server)
112
(Client System)
110
111
109
EXTERNAL DATA
(Inputs data as XML document)
(ASP file passes data to Decision Server)
(Decision Server executes strategy)
(Results returned)
(XML data returned)
(Web Server)

1/22

FIG. 1

2020TO" 97027660

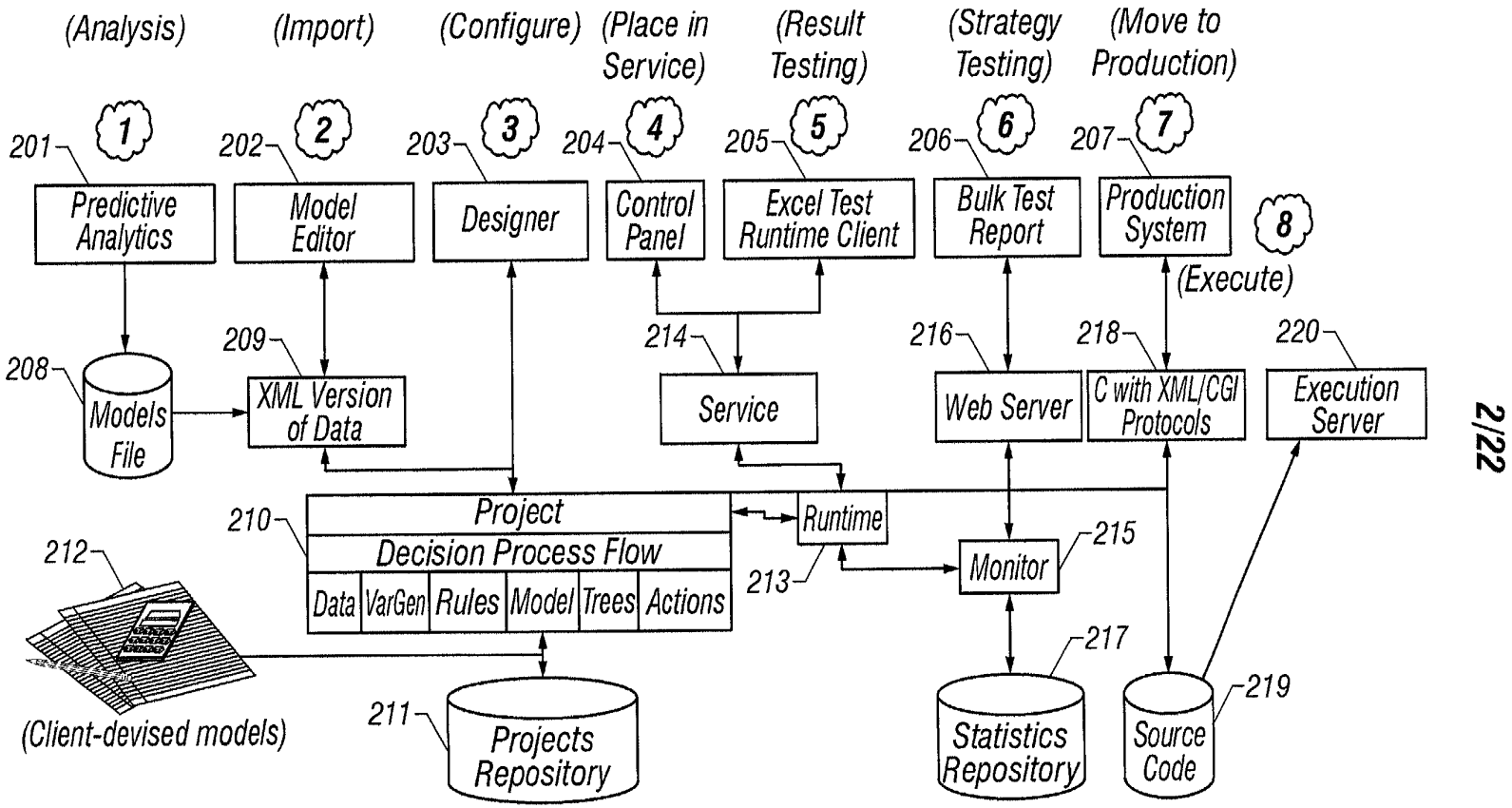


FIG. 2

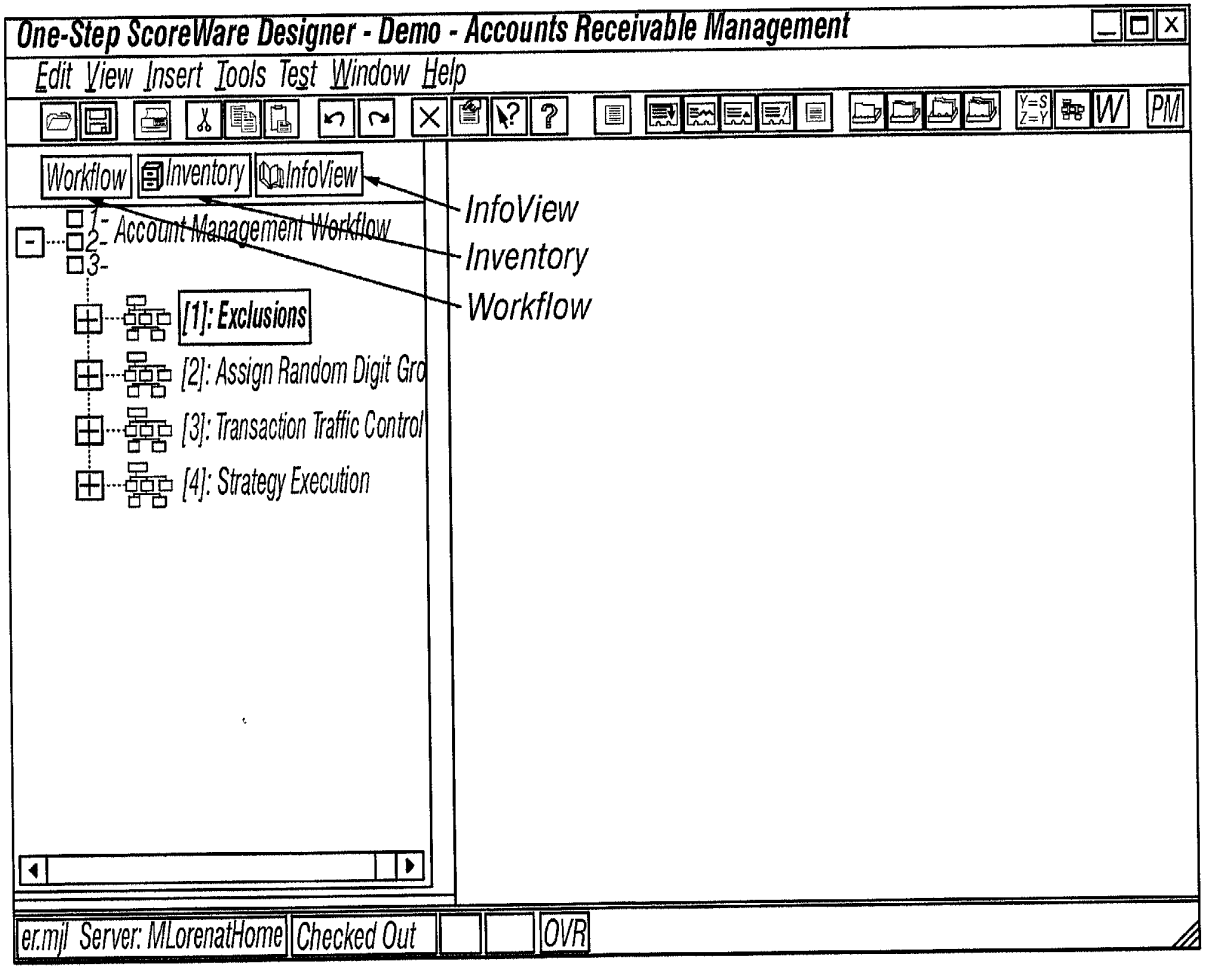

One-Step ScoreWare Designer - Demo - Accounts Receivable Management
Edit View Insert Tools Test Window Help
Workflow
Inventory
InfoView
1- Account Management Workflow
2-
3-
[1]: Exclusions
[2]: Assign Random Digit Gro
[3]: Transaction Traffic Control
[4]: Strategy Execution
InfoView
Inventory
Workflow
er.mjl Server: MLorenatHome
Checked Out
OVR

FIG. 3

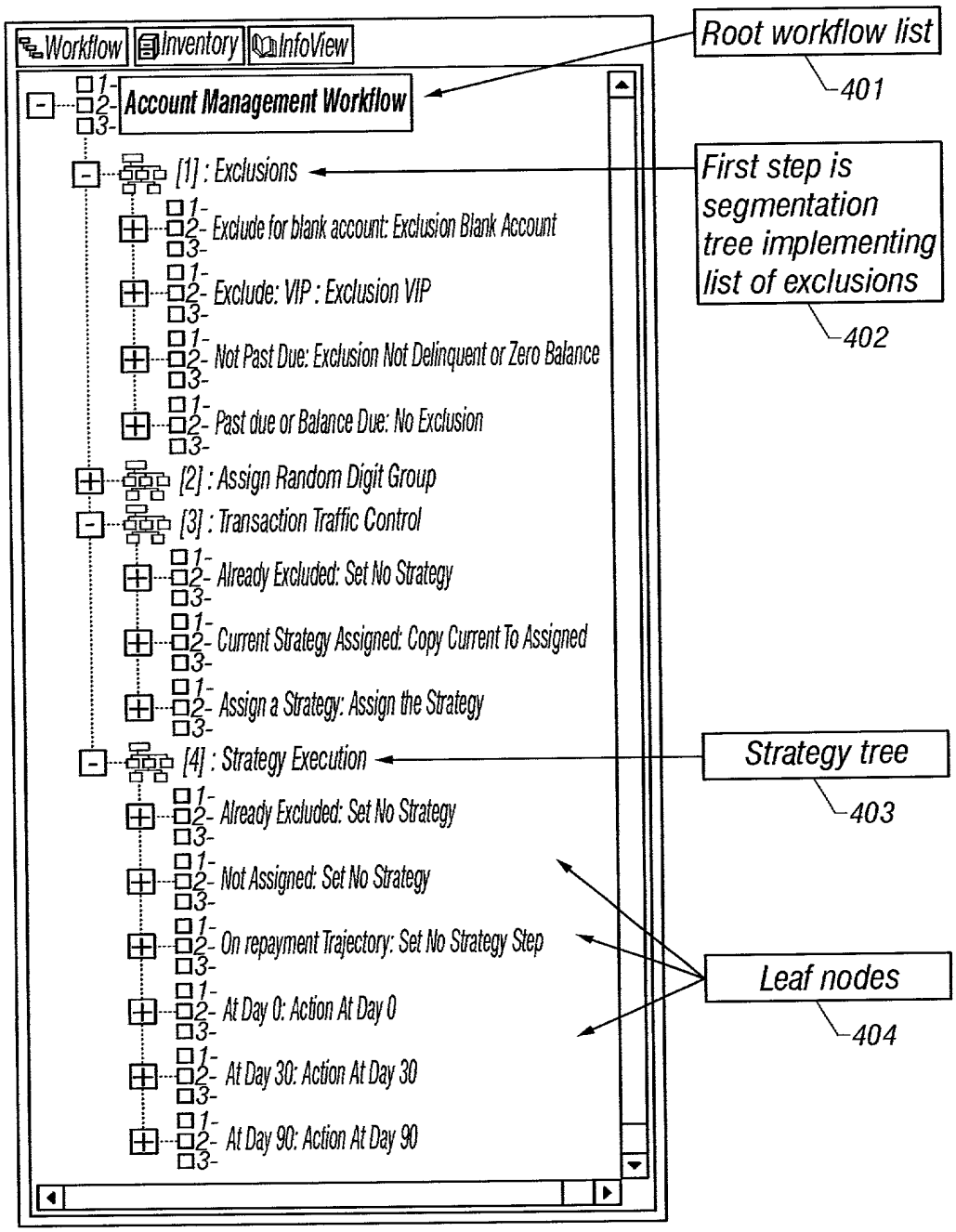


FIG. 4

09976076 - 040202

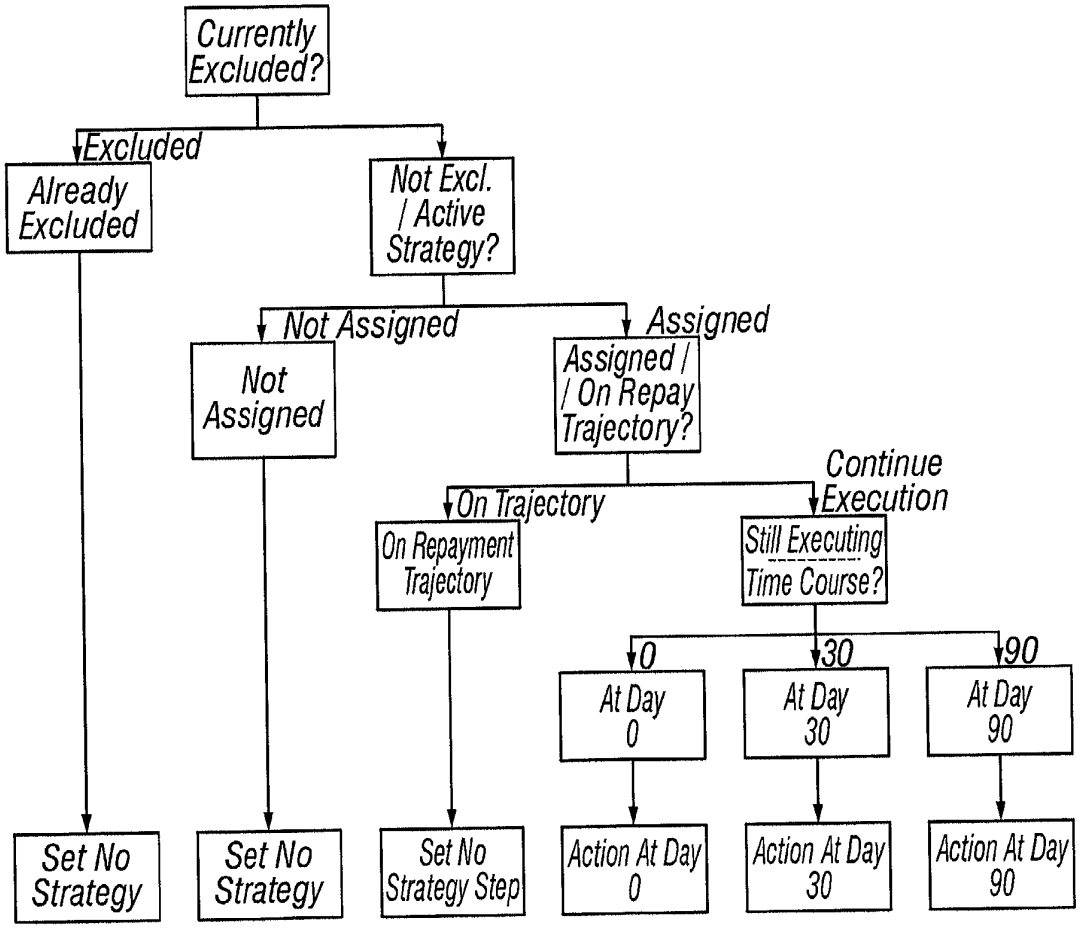

Currently Excluded?
Excluded
Already Excluded
Not Excl. / Active Strategy?
Not Assigned
Assigned
Not Assigned
Assigned / / On Repay Trajectory?
Continue Execution
On Trajectory
On Repayment Trajectory
Still Executing Time Course?
0
30
90
At Day 0
At Day 30
At Day 90
Set No Strategy
Set No Strategy
Set No Strategy Step
Action At Day 0
Action At Day 30
Action At Day 90

FIG. 5

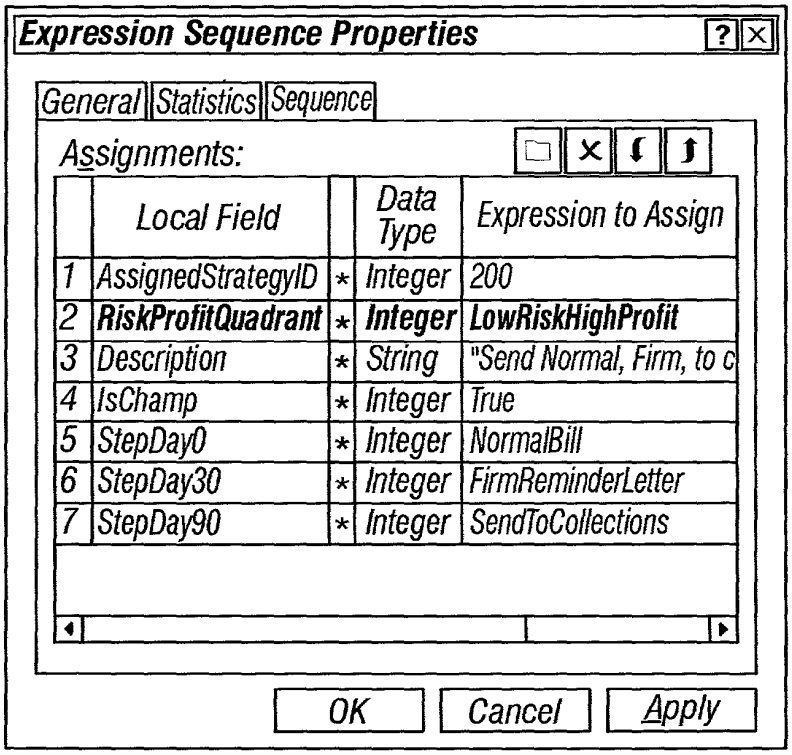

Expression Sequence Properties
General
Statistics
Sequence
Assignments:
Local Field
Data Type
Expression to Assign
1 AssignedStrategyID * Integer 200
2 RiskProfitQuadrant * Integer LowRiskHighProfit
3 Description * String "Send Normal, Firm, to c
4 IsChamp * Integer True
5 StepDay0 * Integer NormalBill
6 StepDay30 * Integer FirmReminderLetter
7 StepDay90 * Integer SendToCollections
OK
Cancel
Apply

FIG. 6

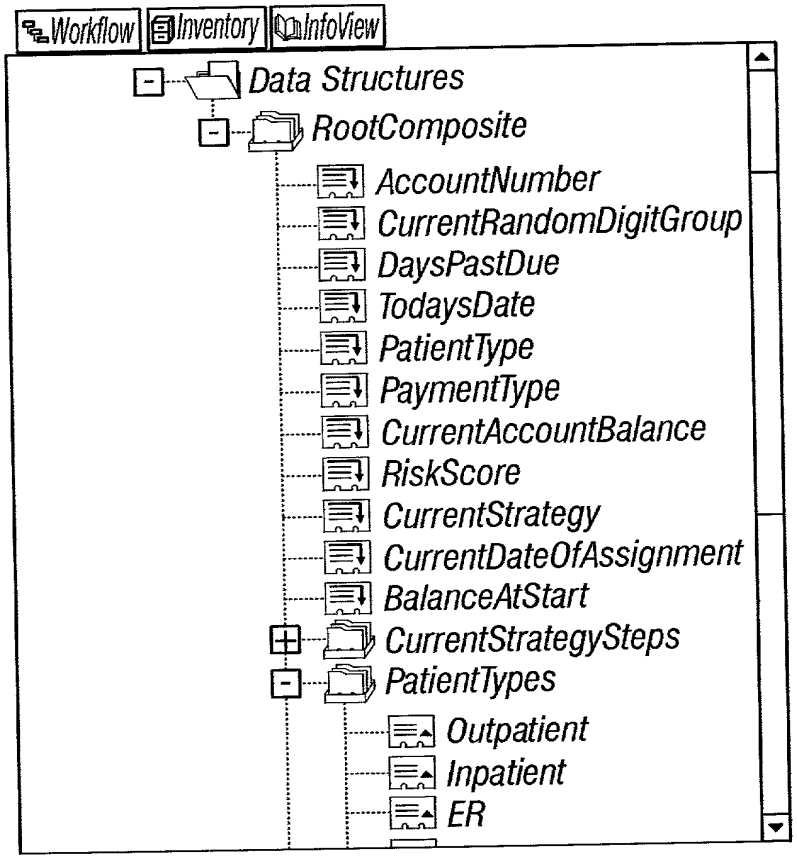

Workflow
Inventory
InfoView
Data Structures
RootComposite
AccountNumber
CurrentRandomDigitGroup
DaysPastDue
TodaysDate
PatientType
PaymentType
CurrentAccountBalance
RiskScore
CurrentStrategy
CurrentDateOfAssignment
BalanceAtStart
CurrentStrategySteps
PatientTypes
Outpatient
Inpatient
ER

FIG. 7

GetActionCodeAtStep (User Defined Function)

```
//
//      This public functions makes the work-around (and dangerous)
//      assumption that iTemp will equal the index (step number) into
//      the data segment.
//
//      It returns the action code associated with the step.
//
this=NoActionCode;
i=0;
For Each CurrentStrategySteps:
        i=i+1;
        If (i==iTemp) Then
                this=Action;
        EndIf
EndFor
```

IsVIPAccount (User Defined Func...

```
//
//
//


this=FALSE;
prefix=SubString(AccountNumber, 1, 1);

If (prefix=="9") Then
        this=TRUE;

EndIf
```

FIG. 8A

ISBalanceRepaymentOnTrajectory (User Defined Function)

```
//
//      The expected balance repayment trajectory is
//      to repay from balance of B at time=0 to balance of
//      0 at time=45 days.
//
//      The trajectory is (for now) assumed to be a straightline.
//
this=FALSE;
If (BalanceAtStart > 0) Then
      If (CurrentAccountBalance <= BalanceAtStart * (1 - DaysInStategy/RepaymentTrajectoryLength)) Then
            this = TRUE;
      EndIf
EndIf
```

FIG. 8B

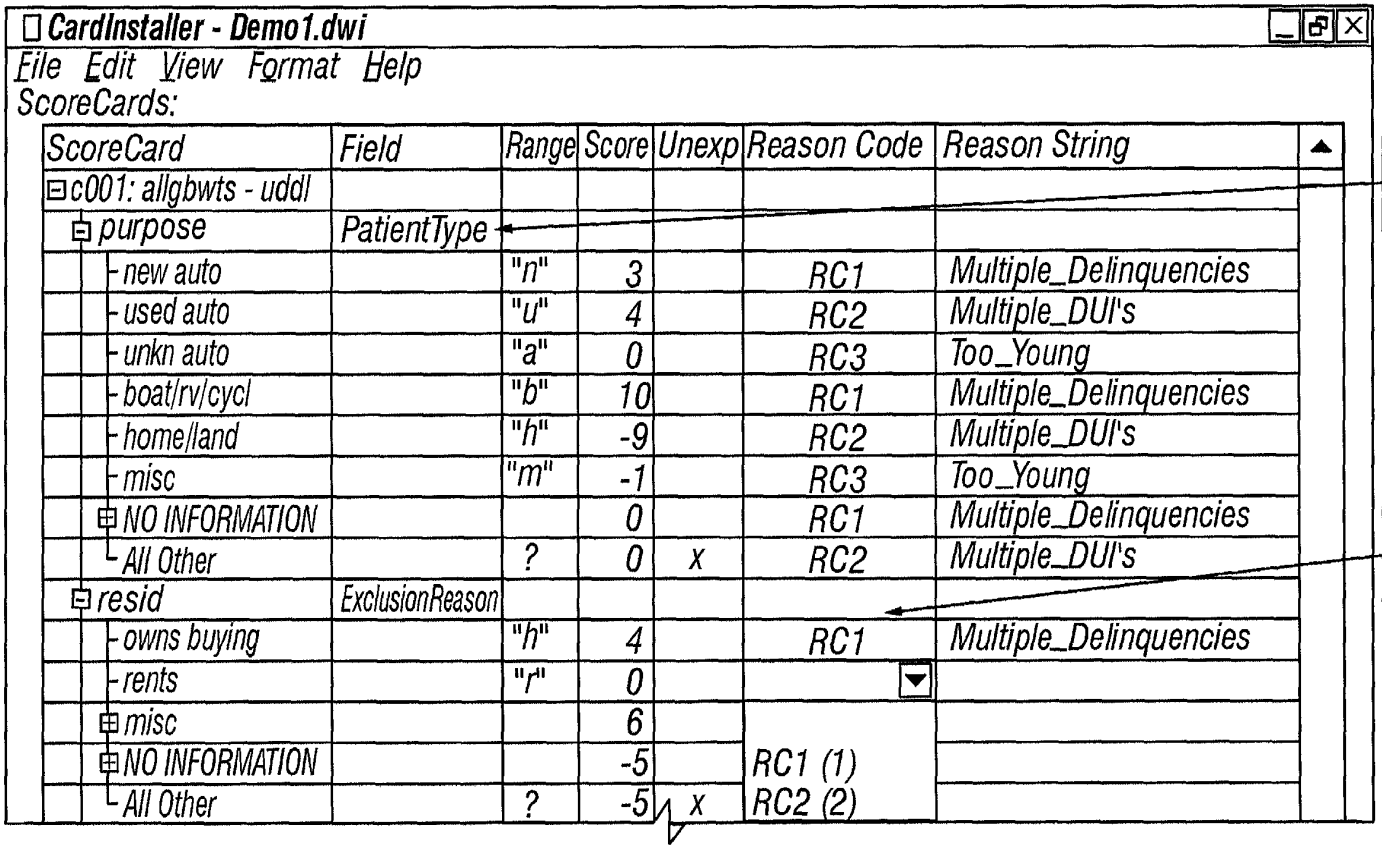

CardInstaller - Demo1.dwi
File Edit View Format Help
ScoreCards:
ScoreCard | Field | Range | Score | Unexp | Reason Code | Reason String
c001: allgbwts - uddl
purpose | PatientType
new auto | "n" | 3 | RC1 | Multiple_Delinquencies
used auto | "u" | 4 | RC2 | Multiple_DUI's
unkn auto | "a" | 0 | RC3 | Too_Young
boat/rv/cycl | "b" | 10 | RC1 | Multiple_Delinquencies
home/land | "h" | -9 | RC2 | Multiple_DUI's
misc | "m" | -1 | RC3 | Too_Young
NO INFORMATION | | 0 | RC1 | Multiple_Delinquencies
All Other | ? | 0 | x | RC2 | Multiple_DUI's
resid | ExclusionReason
owns buying | "h" | 4 | RC1 | Multiple_Delinquencies
rents | "r" | 0
misc | 6
NO INFORMATION | -5 | RC1 (1)
All Other | ? | -5 | x | RC2 (2)
Map to Field
Specify reasons

FIG. 9A

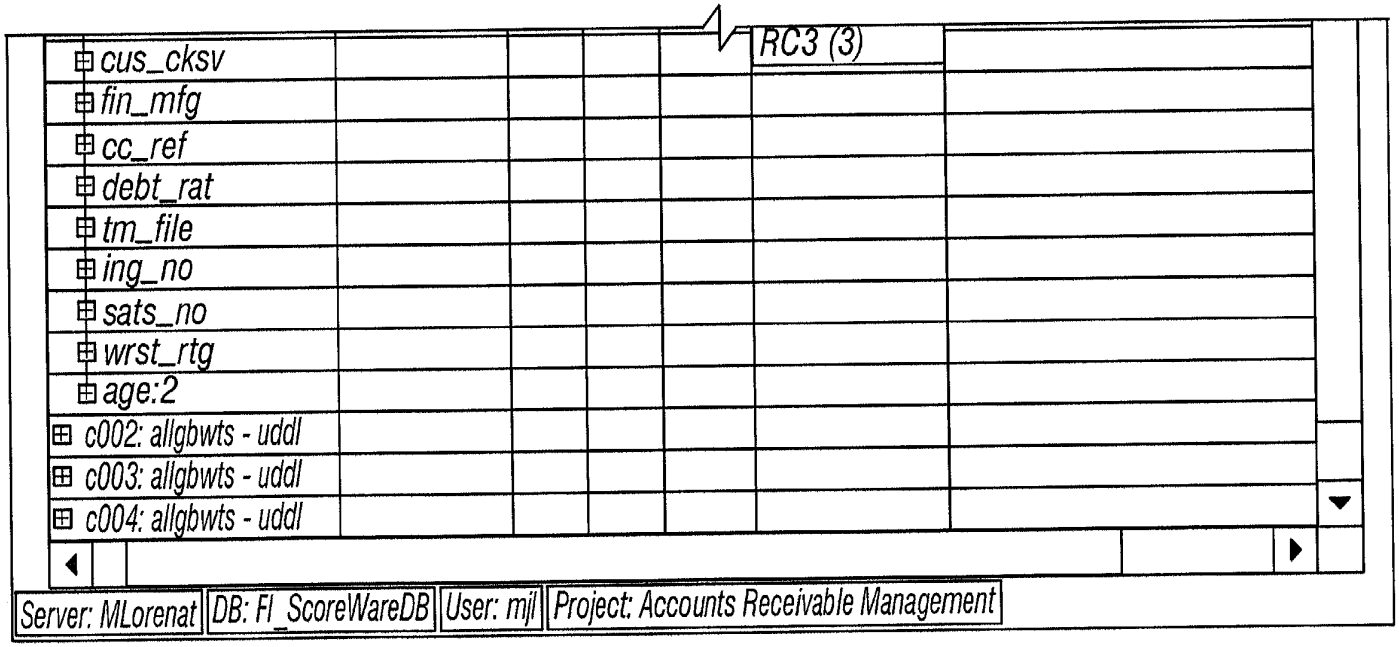
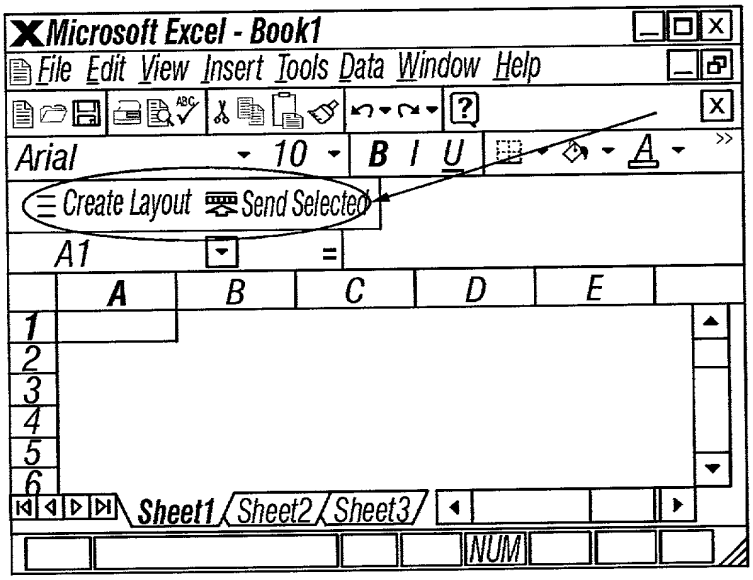

RC3 (3)
cus_cksv
fin_mfg
cc_ref
debt_rat
tm_file
ing_no
sats_no
wrst_rtg
age:2
c002: allgbwts - uddl
c003: allgbwts - uddl
c004: allgbwts - uddl
Server: MLorenat
DB: FI_ScoreWareDB
User: mjl
Project: Accounts Receivable Management

FIG. 9B


Microsoft Excel - Book1
File Edit View Insert Tools Data Window Help
Arial 10 B I U
Create Layout
Send Selected
A1
A B C D E
1 2 3 4 5 6
Sheet1 Sheet2 Sheet3
NUM

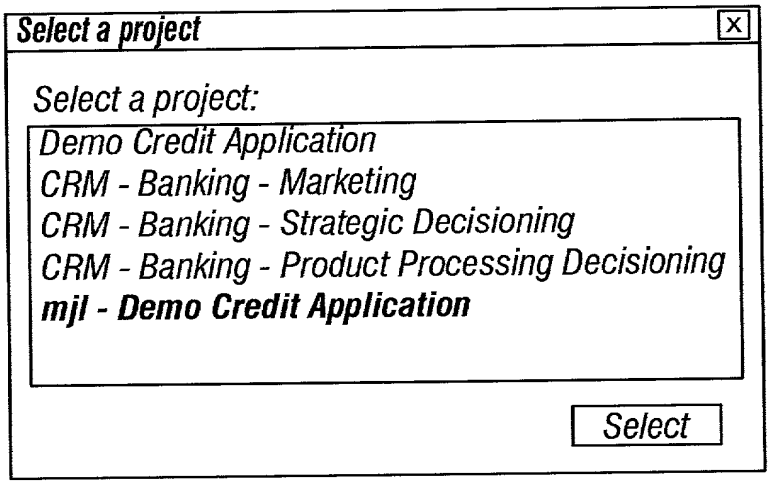

Select a project
Select a project:
Demo Credit Application
CRM - Banking - Marketing
CRM - Banking - Strategic Decisioning
CRM - Banking - Product Processing Decisioning
mjl - Demo Credit Application
Select

FIG. 10A

	A	B	C	D	E	F	G	H
4		Project: mjl - Demo Credit Application						
5		Layout Created: 2/21/99						
6								
7								
8		**Input Data**						
9		Label			Composite Domain		Base Type	
10		BirthDate			Integer		Integer	
11		HomeOwnership			Integer		Integer	
12		MonthlyHousing			Integer		Integer	
13		YearsResiding			Integer		Integer	
14		PositionCode			Integer		Integer	
15		YearsOnJob			Integer		Integer	
16		MonthlyIncome			Integer		Integer	
17								
18								
19		**Expected Data**						
20		Label			Composite Domain		Base Type	
21		RiskScore			Integer		Integer	
22		RevenueScore			Integer		Integer	
23		FirstOffer			String32		String	
24		SecondOffer			String32		String	
25		ExclusionReason			String32		String	
26		ThirdOffer			String32		String	
27		FourthOffer			String32		String	
28		FifthOffer			String32		String	
29		RandomDigit			Integer		Integer	
30								
31								
32		**Output Data**						
33		Label			Composite Domain		Base Type	
34		RiskScore			Integer		Integer	
35		RevenueScore			Integer		Integer	
36		FirstOffer			String32		String	
37		SecondOffer			String32		String	
38		ExclusionReason			String32		String	
39		ThirdOffer			String32		String	
40		FourthOffer			String32		String	
41		FifthOffer			String32		String	
42		RandomDigit			Integer		Integer	
43								
44								

FIG. 10B

09972076 - 042202

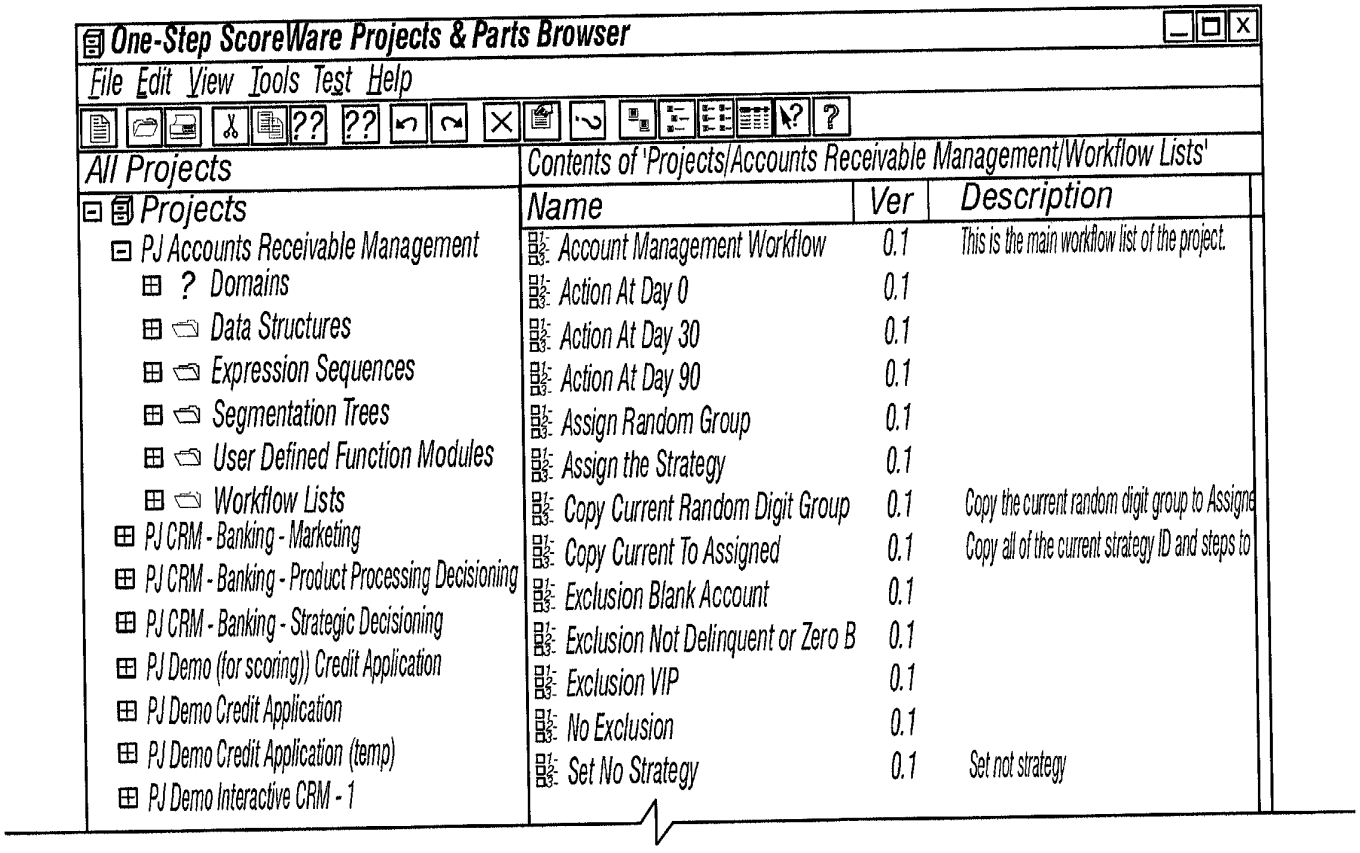

One-Step ScoreWare Projects & Parts Browser
File Edit View Tools Test Help
All Projects
Projects
PJ Accounts Receivable Management
? Domains
Data Structures
Expression Sequences
Segmentation Trees
User Defined Function Modules
Workflow Lists
PJ CRM - Banking - Marketing
PJ CRM - Banking - Product Processing Decisioning
PJ CRM - Banking - Strategic Decisioning
PJ Demo (for scoring)) Credit Application
PJ Demo Credit Application
PJ Demo Credit Application (temp)
PJ Demo Interactive CRM - 1
Contents of 'Projects/Accounts Receivable Management/Workflow Lists'
Name
Ver
Description
Account Management Workflow 0.1 This is the main workflow list of the project.
Action At Day 0 0.1
Action At Day 30 0.1
Action At Day 90 0.1
Assign Random Group 0.1
Assign the Strategy 0.1
Copy Current Random Digit Group 0.1 Copy the current random digit group to Assigne
Copy Current To Assigned 0.1 Copy all of the current strategy ID and steps to
Exclusion Blank Account 0.1
Exclusion Not Delinquent or Zero B 0.1
Exclusion VIP 0.1
No Exclusion 0.1
Set No Strategy 0.1 Set not strategy

FIG. 11A

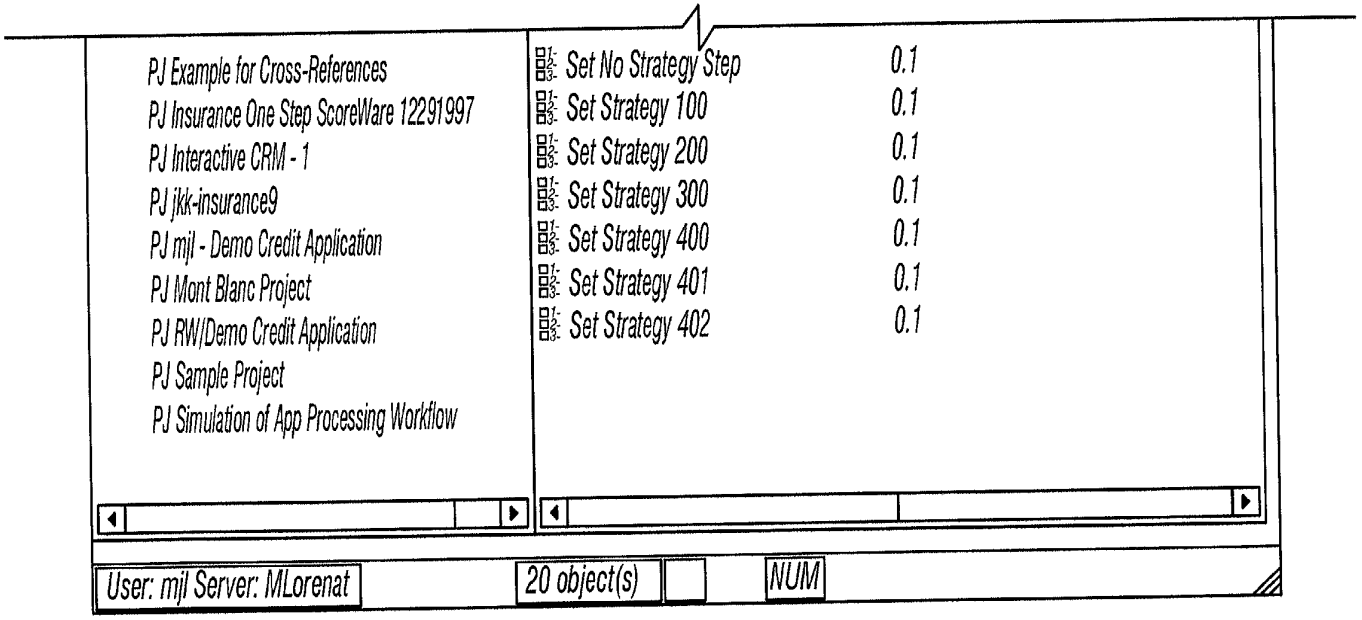

PJ Example for Cross-References
PJ Insurance One Step ScoreWare 12291997
PJ Interactive CRM - 1
PJ jkk-insurance9
PJ mjl - Demo Credit Application
PJ Mont Blanc Project
PJ RW/Demo Credit Application
PJ Sample Project
PJ Simulation of App Processing Workflow
Set No Strategy Step 0.1
Set Strategy 100 0.1
Set Strategy 200 0.1
Set Strategy 300 0.1
Set Strategy 400 0.1
Set Strategy 401 0.1
Set Strategy 402 0.1
User: mjl Server: MLorenat
20 object(s)
NUM

FIG. 11B

SYSTEM PROJECT REPORTS PAGE

PROJECT REPORT SELECTION

Demo Credit Application, version 0.1

Inventory	Data Domains	Input/Output	Input Layout
	Data Structures		Output Layout
	Expression Sequences		
	Segmentation Trees		
	Workflow Lists	Integrity	Integrity Review
	User Defined Functions		
Workflow	Workflow Outline Tree	Testing	Bulk Testing

FIG. 12

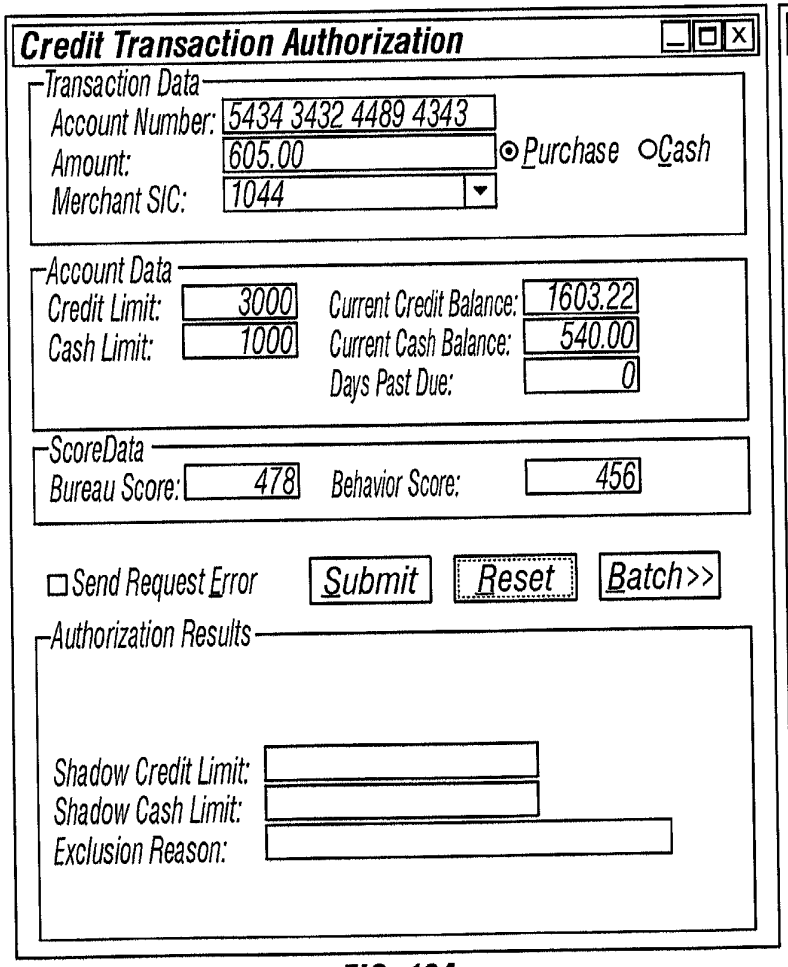


FIG. 13A

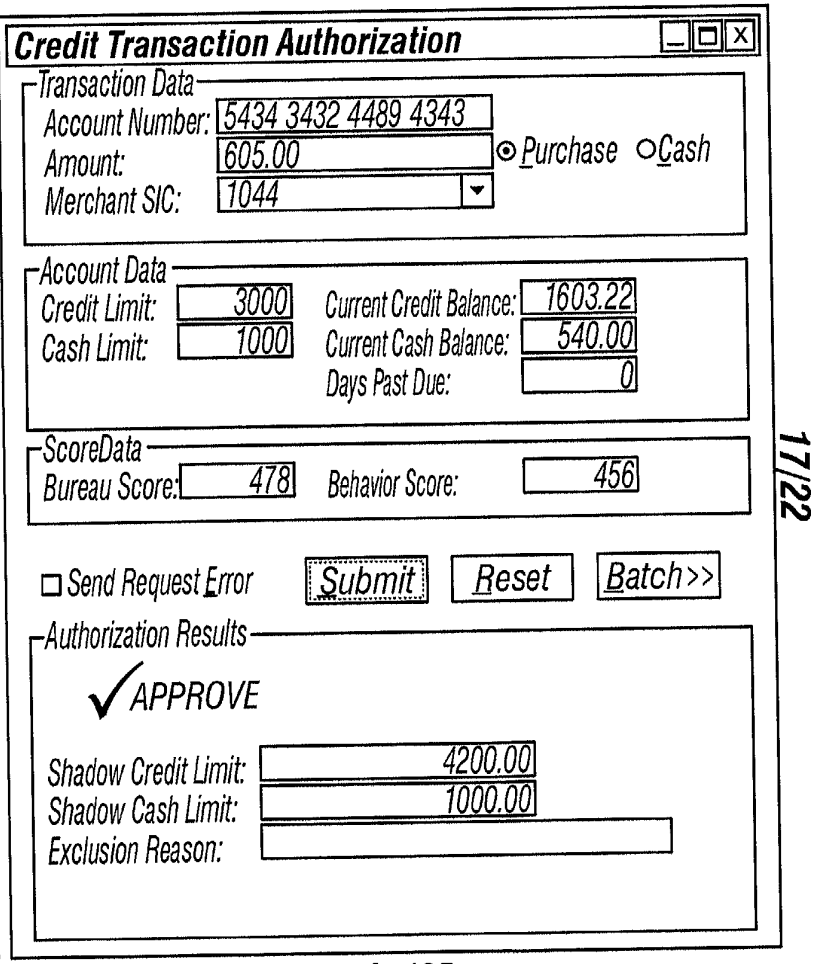


FIG. 13B

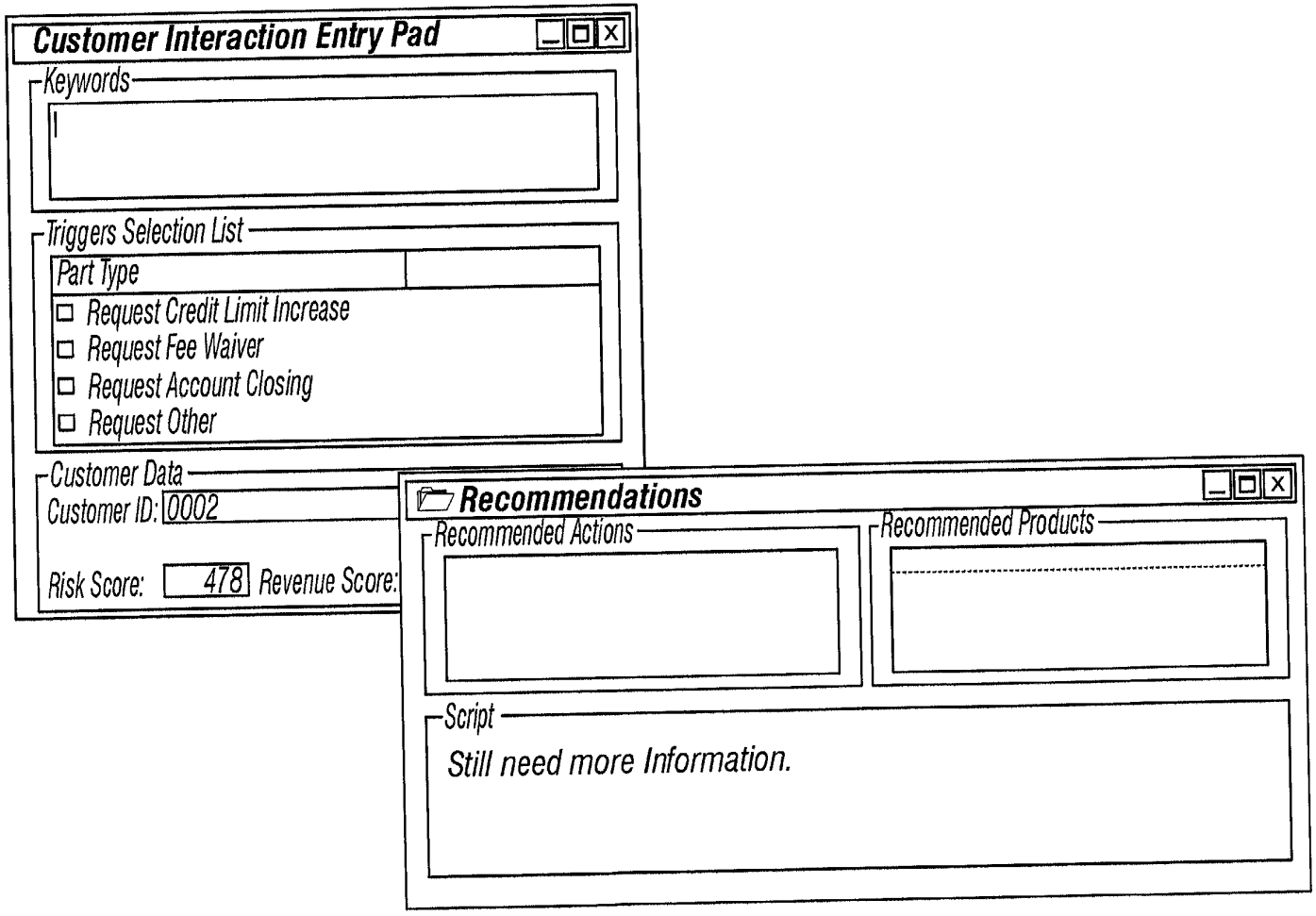

Customer Interaction Entry Pad
Keywords
Triggers Selection List
Part Type
Request Credit Limit Increase
Request Fee Waiver
Request Account Closing
Request Other
Customer Data
Customer ID: 0002
Risk Score: 478
Revenue Score:
Recommendations
Recommended Actions
Recommended Products
Script
Still need more Information.

FIG. 14A

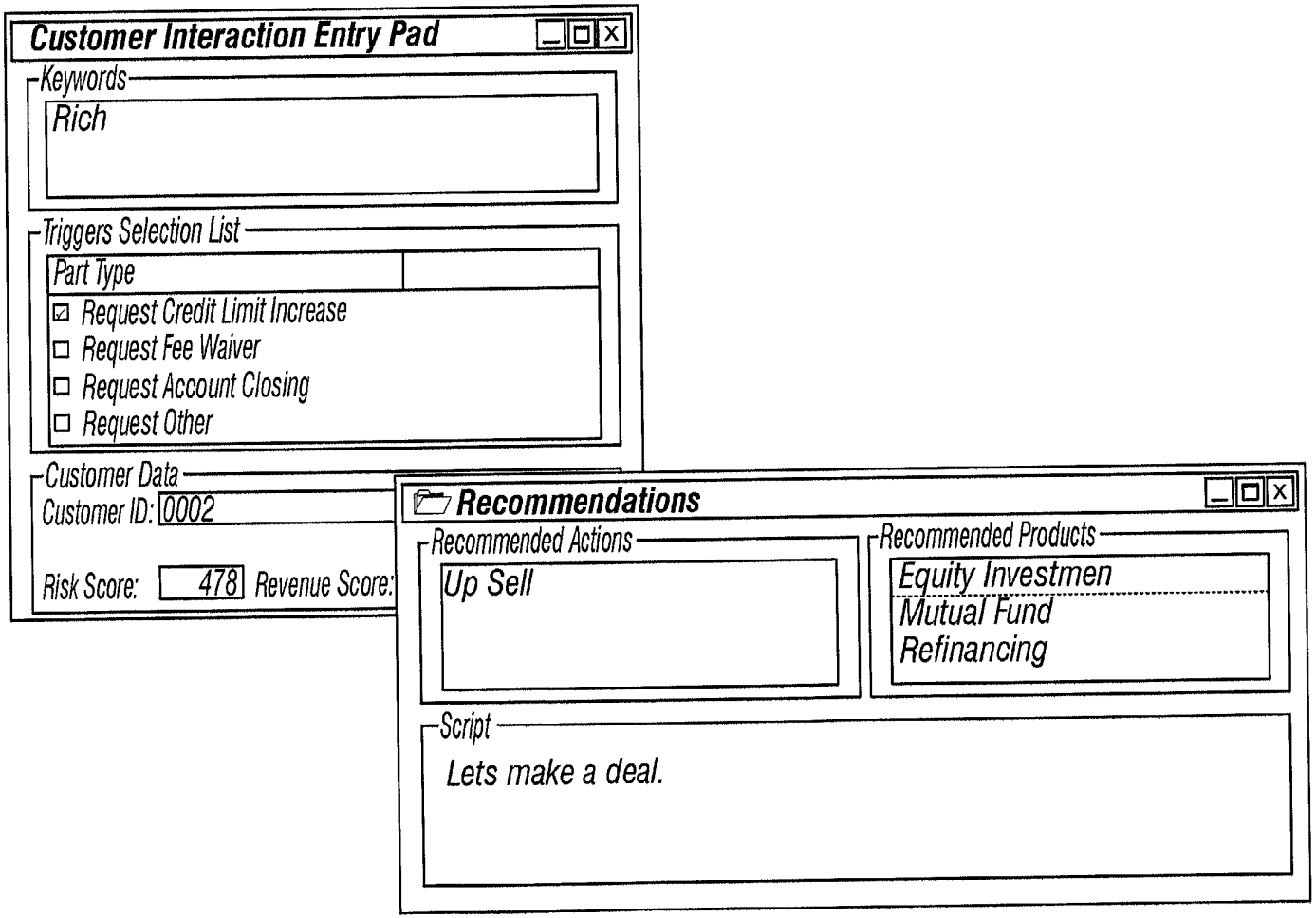

Customer Interaction Entry Pad
Keywords
Rich
Triggers Selection List
Part Type
Request Credit Limit Increase
Request Fee Waiver
Request Account Closing
Request Other
Customer Data
Customer ID: 0002
Risk Score: 478
Revenue Score:
Recommendations
Recommended Actions
Up Sell
Recommended Products
Equity Investmen
Mutual Fund
Refinancing
Script
Lets make a deal.

FIG. 14B

09720765 - 010202

Status **Logoff** **Project List** **Report List** **Refresh Project**

Expand All **Show Nodes** **Visio® Remote** **Refresh Stats**

Workflow Outline Tree Report

CRM Demo, version 0.1

ID	*Item*
1	⊟ *Main Process*
2	⊟ *(1) : Triggers*
3	⊞ *Credit Limit increase: Include*
5	⊞ *Fee Waiver: Include*
7	⊞ *Account Closing: Include*
9	⊞ *Other: Include*
11	⊞ *Exclude: Exclude*
14	⊟ *(2) : Segment If Included*
15	⊟ *Segment: Market Segment*
16	⊟ *(1) : Customer-based Market Segment*
17	⊞ *Hidden Vein: Roll the Dice Production*
33	⊞ *Free Nuggets: Pick em up Production*
48	⊞ *Fool's Gold: Drop em*
63	⊞ *Sand Flecks: Turn em On or Drop em*
78	⊞ *Not Assigned: Exclude*
81	⊞ *Excluded: Exclude*
84	⊟ *(3) : Marketing Channel Selection*

TOP

FIG. 15

Workflow Outline Tree Report

Demo-Accounts Receivable Management, version 0.1

ID	Item
1	⊟ *Account Management Workflow*
2	⊞ *(1) : Exclusions*
11	⊞ *(2) : Assign Random Digit Group*
16	⊟ *(3) : Transaction Traffic Control*
17	⊞ *Already Excluded: Set No Strategy*
19	⊞ *Current Strategy Assigned: Copy Current To Assigned*
21	⊟ *Assign a Strategy: Assign the Strategy*
22	⊟ *(1) : Strategy Assignment*
23	⊞ *Excluded: Set No Strategy*
25	⊞ *Low $: Set Strategy 100*
27	⊞ *High $: Set Strategy 200*
29	⊞ *Low $: Set Strategy 300*
31	⊞ *Champion 90%: Set Strategy 400*
33	⊞ *1st Challenger 5%: Set Strategy 401*
35	⊞ *2nd Challenger 5%: Set Strategy 402*
37	⊞ *Medicare: Set No Strategy*
39	⊞ *Commercial: Set No Strategy*
41	⊞ *Other: Set No Strategy*
43	⊞ *Outpatient: Set No Strategy*
45	⊞ *ER: Set No Strategy*
47	⊞ *Other: Set No Strategy*
49	⊟ *(4) : Strategy Execution*
50	⊞ *Already Excluded: Set No Strategy*
52	⊞ *Not Assigned: Set No Strategy*
54	⊞ *On Repayment Trajectory: Set No Strategy Step*
56	⊞ *At Day 0: Action At Day 0*
58	⊞ *At Day 30: Action At Day 30*
60	⊞ *At Day 90: Action At Day 90*

FIG. 16

US 2003/0050796 A1

Status	Logoff	Project List	Report List	Refresh Project
Expand All	Show Nodes	Visio© Remote	Refresh Stats	

Workflow Outline Tree Report

LifetimeValueScore Initial, version 0.1

ID	Item
1	⊟ Root Result List
2	(1) : Generate Characteristics
3	⊟ (2) : ScoreSegmentation
4	⊞ 0 : ExcludeBadAge
6	⊞ Less < 21 : ExcludeTooYoung
8	⊞ >= 21 : DoScore

TOP

FIG. 17

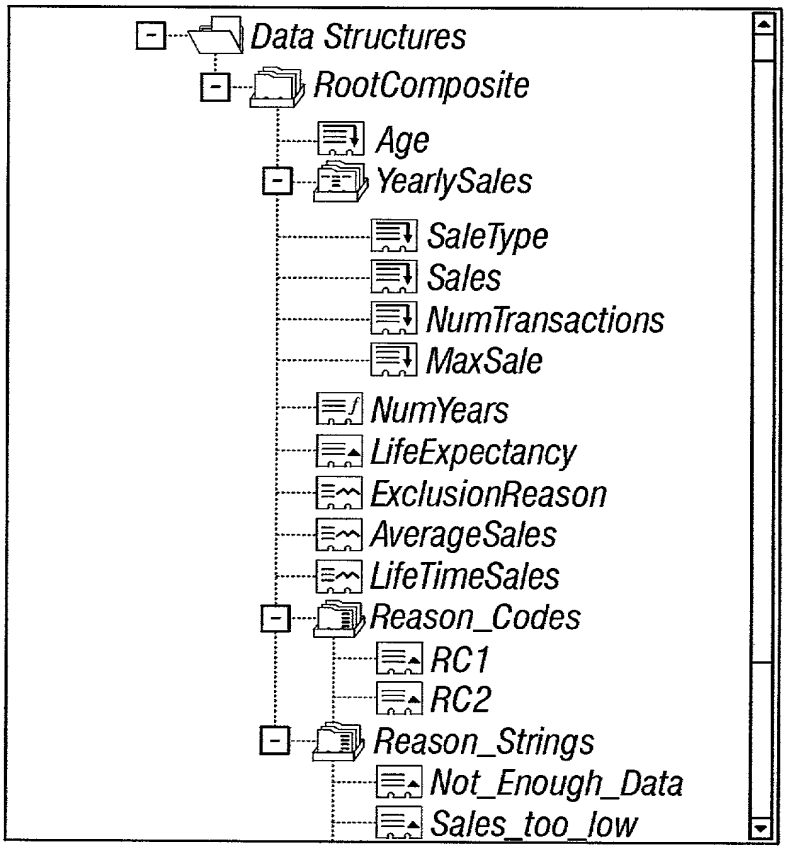


FIG. 18